Worcester Cyanobacteria Monitoring Collaborative

WCMC Results June 03, 2024

Lake and Overall Risk	Phycoyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Burncoat Pond	8	1619	none	
Coes Reservoir	ND	494	some	Aphanizomenon, Dolichospermum
Cooks Pond	ND	91	none	
Ecotarium Pond	45	518	none	
Farm Pond	ND	12	none	
Green Hill Park Pond	ND	92	low	
Indian Lake	ND	168	low	Microcystis , Woronichinia
Jordan Pond	ND	50	low	Microcystis
Kiver Pond	16	5494	none	
Lake Quinsigamond Lake Park	ND	102	none	
Lake Quinsigamond King's Point	ND	106	low	Dolichospermum
Little Indian Lake	17	3502	none	
Manchaug Pond	ND	111	low	Dolichospermum, Microcystis
Newton Pond	15	16	none	
Stevens Pond	ND	8	Low	Dolichospermum
Crystal Pond	ND	119	none	
Lake Lashaway	9	34	low	Microcystis Debris

Previous Results for Lake's Not Tested this Period

East Lake Waushacum	ND	22	none	
Elm Park Pond	36	2877	high	Dolichospermum, Microcystis
Flint Pond	ND	71	none	
Patch Pond	ND	1361	none	
Patch Reservoir	ND	346	None	
Salisbury Pond	14	9517	low	Microcystis Debris

Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria	
Almost none	0-15	0-1000	none	
Low	15-20	1000-5000	low	
Elevated	20-50	5000-10000	some	
Blooming	>50	>10000	high	*See reverse side for details*

Results are based on methods that are not certified by the Commonwealth of MA but are presented as recommendations so that lake uses can make informed choices about their contact. We encourage people to use their best judgement, and "If in doubt, stay out!"

If you or your pet has been exposed to water that may contain cyanotoxins, rinse the areas with tap water immediately. If your pet has ingested scums or water containing cyanobcteria, contact your veterinarian as soon as possible.

Learn more at WorcesterMA.gov/WCMC

Interpreting WCMC Results

If you or your pet has been exposed to water that may contain cyanotoxins, rinse with tap water immediately. Do not let animals lick their fur. If your pet has ingested scums or water containing cyanobacteria, contact your veterinarian as soon as possible and see these CDC guidelines:

[Cyanobacterial Blooms: Information for Veterinarians | Harmful Algal Blooms | CDC](#).

The WCMC is a group of volunteer community scientists that is developing ways to assess risk to cyanotoxin exposure using fast and low cost methods. These results are based on methods that are not certified by the Commonwealth of MA but are presented as recommendations so that lake uses can make informed choices about their contact.

We encourage people to use their best judgement, and "If in doubt, stay out!"

The WCMC does not measure cyanotoxins, instead the group uses four parameters to determine the **risk of cyanotoxin exposure**. These include **phycocyanin concentration**, **particle concentration**, **cyanobacteria density**, and the **cyanobacteria observed**. Each of the results are ranked and given a color to identify severity. The overall risk of exposure at each lake is determined by reviewing all four parameters together.

Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria
Almost none	0-15	0-1000	none
Low	15-20	1000-5000	low
Elevated	20-50	5000-10000	some
Blooming	>50	>10000	high

ND = Below detection limits

Risk of Exposure: Overall risk of exposure to cyanotoxins in the waterbody based on a holistic interpretation of the data collected.

Phycocyanin: Cyanobacteria-specific pigment concentration in the water. The more phycocyanin there is in the water, the more cyanobacteria are present. However, because different kinds of cyanobacteria produce different quantities of phycocyanin, the risk of toxin production is different for the same concentration of phycocyanin when there are different cyanobacteria present.

Particle Concentration: Particles include living and non-living materials and can be a proxy for overall turbidity of the water. High concentrations of particles in the water can be indicative of cyanobacteria blooms, but can also be the result of other factors such as non-living debris and sediment. The phycocyanin concentrations and cyanobacteria density help to interpret if particles are due to cyanobacteria or other sources.

Cyanobacteria Density: The ratio of cyanobacteria to other organisms in the sample. Higher densities can indicate elevated risk of exposure to cyanotoxins. Density results do not consider concentration, but in general, systems dominated by cyanobacteria are at higher risk for producing toxins.

Cyanobacteria Observed: Genera of cyanobacteria identified in the sample. Because different cyanobacteria have different levels of phycocyanin, observed cyanobacteria help determine the threshold of phycocyanin that is considered risky.